Amendments to the Claims

1-31. canceled

32. (previously presented) A breathing mask for monitoring a patient during gas delivery comprising:

a body having an internal surface, an external surface, and a perimeter surface shaped to form a seal around the patient's nose; and

a headgear adapted to retain the body on the patient's head, the headgear having at least one EEG sensor positioned thereon to detect brain activity.

33-56. canceled

57. (previously presented) The breathing mask of claim 32, wherein the headgear is a cap.

58. (previously presented) The breathing mask of claim 32, wherein the perimeter surface is adapted to detect ECG.

59. (previously presented) The breathing mask of claim 32, and further comprising a flow sensor connected to the internal surface.

60. (previously presented) The breathing mask of claim 32, and further comprising an oxygen saturation sensor extended from the mask.

61. (previously presented) The breathing mask of claim 32, wherein the perimeter surface is adapted to detect muscle movements.

62. (previously presented) A nasal ventilation mask comprising:

a body having an internal surface, an external surface, and a perimeter surface adapted to form seal around a patient's nose,

an airhose extending from the body;

a headgear adapted to retain the body on the patient's head, the headgear having at least one EEG sensor positioned thereon to detect brain activity; and

at least one EMG sensor connected to the body and positioned to detect muscle activity relating to a sleep state.

63. (previously presented) The mask of claim 62, and further comprising a first sensor positioned on the internal surface for detecting nasal breathing and a second sensor positioned on the external surface for detecting oral breathing.

64. (previously presented) The mask of claim 63, wherein the first and second sensors are thermal sensors.

65. (previously presented) The mask of claim 62, and further comprising at least one EEG sensor positioned on the perimeter surface.

66. (previously presented) The mask of claim 62, and further comprising at least one EOG sensor positioned on the perimeter surface.

67. (previously presented) The mask of claim 62, wherein a portion of the perimeter surface is comprised of a conductive carbonized rubber material.

68. (previously presented) The mask of claim 62, and further comprising a plurality of straps coupled to the body, the straps having at least one sensor positioned thereon.

69. (previously presented) The mask of claim 62, and further comprising a position sensor coupled to the body.

70. (previously presented) The mask of claim 62, and further comprising a microphone coupled to the body.

71. (previously presented) The mask of claim 62, wherein the perimeter surface is adapted to sense air leaks.

72. (previously presented) The mask of claim 62, and further comprising a patient recycled air detection system positioned on the internal surface.

73. (previously presented) A nasal ventilation mask assembly comprising:

a nasal mask adapted to form a seal around a patient's nose; and

a headgear adapted to retain the body on the patient's head, the headgear having an EEG sensor positioned thereon to contact a patient's forehead upon application of the nasal mask.

74. (previously presented) The mask of claim 73 and further comprising a computer in communication with the sensor, the computer adapted to determine arousal.

75. (previously presented) The mask of claim 73 and further comprising a computer in communication with the sensor, the computer adapted to determine sleep state.

76. (previously presented) The mask of claim 73 and further comprising an EMG sensor coupled to the nasal mask.

77. (currently amended) A breathing mask for monitoring a patient during gas delivery comprising:

a body having an internal surface, an external surface, and a perimeter surface shaped to form a seal around the patient's nose and mouth; and

a headgear adapted to retain the body on the patient's head, the headgear having at least one EEG sensor positioned thereon so as to be positioned on a top portion of a patient's head.

78. canceled

79. (new) A nasal ventilation system comprising:

a nasal mask adapted to form a seal around a patient's nose, the nasal mask having a body, an internal surface, an external surface, and a perimeter surface;

a headgear adapted to retain the body on a patient's head, the headgear having at least one EEG sensor positioned thereon so as to be positioned on a top portion of a patient's head;

an EMG sensor located on the perimeter surface; and

a computer in communication with the EEG and EMG sensor, the computer adapted to determine sleep state.

80. (new) The system of claim 79, and further comprising a gas delivery system in communication with computer and pneumatically coupled to the mask.

81. (new) The system of claim 80, wherein an output of the gas delivery system is controlled by the patient's sleep state.

82. (new) The system of claim 79, and further comprising a sensor located on the external surface for determining if a patient is breathing through his mouth.

83. (new) The system of claim 79, and further comprising a flow sensor located on the internal surface.

utilizing EEG sensors. In Brown, there is neither a use or a benefit for including an EEG sensor. In fact, the addition of an EEG monitoring system would probably make Brown's invention to heavy to implement. Furthermore, Brown's invention is meant to be carried in a backpack while walking or skiing outside in avalanche conditions, one skilled in the art would clearly realize that excessive movement would severely distort any EEG readings. The subject invention and Miles were meant for use during respiratory treatments, Brown was intended for a totally non-analogous use. Consequently, there is no motivation in the cited prior art to combine Miles with Brown.

Claims 62-66, 68, 69-71, and 73-76 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,353,788 to Miles in view of U.S. Patent No. 6,000,395 to Brown. For the reasons cited above, we respectfully disagree that these claims are unpatentable in view of Miles and Brown. In addition, we respectfully submit that Miles does not disclose with the required specificity the feature of having sensors placed on the mask itself. Miles only discloses the use of sensors which are directly connected to the monitoring station. There is insufficient detail as to the placement of sensors in the mask.

Claims 79-83 were added in order to claim additional subject matter disclosed in the specification.